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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,062	03/22/2004	Aled Edwards	IPT-101.01	1510

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EXAMINER	
NOAKES, SUZANNE MARIE	
ART UNIT	**PAPER NUMBER**
1653	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,062	EDWARDS ET AL.	
	Examiner	Art Unit	
	Suzanne M. Noakes, Ph.D.	1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-50* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-12 and 22, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 5 or 7, classified in class 530, subclass 350.

II. Claims 13-20, drawn to a crystallized recombinant polypeptide of SEQ ID No: 2 or 4, classified in class 530, subclass 350.

III. Claim 21, drawn to a host cell comprising a nucleic acid that encodes the polypeptide of SEQ ID No: 5 or 7, classified in class 435, subclass 41.

IV. Claim 23, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 28 or 30, classified in class 530, subclass 350.

V. Claim 24, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 47 or 49, classified in class 530, subclass 350.

VI. Claim 25, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 56 or 58, classified in class 530, subclass 350.

VII. Claim 26, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 65 or 67, classified in class 530, subclass 350.

VIII. Claim 27, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 74 or 76, classified in class 530, subclass 350.

IX. Claim 28, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 83 or 85, classified in class 530, subclass 350.

X. Claim 29, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 92 or 94, classified in class 530, subclass 350.

XI. Claim 30, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 101 or 103, classified in class 530, subclass 350.

XII. Claim 31, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 120 or 122, classified in class 530, subclass 350.

XIII. Claim 32, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 140 or 142, classified in class 530, subclass 350.

XIV. Claim 33, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 149 or 151, classified in class 530, subclass 350.

XV. Claim 34, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 158 or 160, classified in class 530, subclass 350.

XVI. Claim 35, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 167 or 169, classified in class 530, subclass 350.

XVII. Claim 36, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 176 or 178, classified in class 530, subclass 350.

XVIII. Claim 37, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 185 or 187, classified in class 530, subclass 350.

XIX. Claim 38, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 194 or 196, classified in class 530, subclass 350.

XX. Claim 39, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 203 or 205, classified in class 530, subclass 350.

XXI. Claim 40, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 212 or 214, classified in class 530, subclass 350.

XXII. Claim 41, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 221 or 223, classified in class 530, subclass 350.

XXIII. Claim 42, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 230 or 232, classified in class 530, subclass 350.

XXIV. Claim 43, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 239 or 241, classified in class 530, subclass 350.

XXV. Claim 44, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 248 or 250, classified in class 530, subclass 350.

XXVI. Claim 45, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 270 or 272, classified in class 530, subclass 350.

XXVII. Claim 46, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 279 or 281, classified in class 530, subclass 350.

XXVIII. Claim 47, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 288 or 290, classified in class 530, subclass 350.

XXIX. Claim 48, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 297 or 299, classified in class 530, subclass 350.

XXX. Claim 49, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 306 or 308, classified in class 530, subclass 350.

XXXI. Claim 50, drawn to a composition comprising an isolated and recombinant polypeptide of SEQ ID No: 315 or 317, classified in class 530, subclass 350.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II and IV-XXXI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions. Each group claims distinct and separate polypeptides that are biologically distinct because each sequence has its own structure and function that is independent from one another. The specification on pp. 6-8 highlights this fact and outlines that the each different Invention and its sequences. It is apparent that the different Inventions are encoded by completely separate genes, have completely enzymatic activities and/or are derived from different organisms. Thus not only is each group unrelated, but searching more than one group will impose a serious search burden upon the examiner and the Office because each individual search would not be coextensive in either the non-patent literature or the protein sequence database search.

3. Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, the protein of Invention I and the recombinant host cell of Invention III are related by virtue of the nucleic acid that encodes the protein

and is expressed in the host cell. However, the protein itself is not necessary to express the nucleic acid in the host cell and both the protein and host cell have wholly different compositions and functions. Therefore, these inventions are distinct.

4. Inventions III and II, IV-XXXI are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as being capable of being used together. The host cell comprising nucleic acids encoding the polypeptides of SEQ ID No: 5 or 7 does not function is encoding any of the polypeptides of Groups IV-XXXI, thus the inventions are unrelated and would have recognized divergent searches which would place an undue search burden on the examiner .

5. Because these inventions are distinct for the reasons given above and the search required for each Group is not required for any other Group, restriction for examination purposes as indicated is proper.

6. This application contains claims directed to the following patentably distinct species of the claimed invention: NMR isotopes that enrich a polypeptide of SEQ ID No: 5 or 7 in claim 7.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 6 is generic to claim 7.

7. This application contains claims directed to the following patentably distinct species of the claimed invention: deuterium lock solvents of claim 9.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 8 is generic to claim 9.

8. This application contains claims directed to the following patentably distinct species of the claimed invention: heavy atoms of claim 11 that label the polypeptides of SEQ ID No: 5 or 7.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 10 is generic to claim 11.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the

case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

9. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne M. Noakes, Ph.D. whose telephone number is 571-272-2924. The examiner can normally be reached on Monday to Friday, 7.30am to 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMN
05 January 2006

MARYAM MONSHIPOURI, PH.D.
PRIMARY EXAMINER